**Commonwealth of Kentucky**
**Environmental and Public Protection Cabinet**
**Department for Environmental Protection**
**Division for Air Quality**
**803 Schenkel Lane**
**Frankfort, Kentucky 40601**
**(502) 573-3382**

**Final**

# AIR QUALITY PERMIT

**Issued under 401 KAR 52:030**

| | |
|---|---|
| **Permittee Name:** | **NRE Acquisition Co LLC – VMV Paducahbilt** |
| **Mailing Address:** | **1300 Kentucky Avenue, Paducah, Kentucky 42003** |
| **Source Name:** | **NRE Acquisition Co LLC – VMV Paducahbilt** |
| **Mailing Address:** | **1300 Kentucky Avenue<br>Paducah, Kentucky 42003** |
| **Source Location:** | **1300 Kentucky Avenue** |
| **Permit ID:** | **F-07-003** |
| **Agency Interest #:** | **3077** |
| **Activity ID:** | **APE20040002** |
| **Review Type:** | **Conditional Major / Synthetic Minor, Operating** |
| **Source ID:** | **21-145-00019** |
| **Regional Office:** | **Paducah Regional Office<br>130 Eagle Nest Drive<br>Paducah, KY 42003<br>(270) 898-8468** |
| **County:** | **McCracken** |
| **Application Complete Date:** | **December 13, 2007** |
| **Issuance Date:** | **May 1, 2008** |
| **Revision Date:** | |
| **Expiration Date:** | **May 1, 2013** |

**John S. Lyons, Director**
**Division for Air Quality**

*Revised 09/29/06*

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| | **Permit type** | **Log or Activity#** | **Complete Date** | **Issuance Date** | **Summary of Action** |
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| **F-07-003** | **Renewal** | **APE20040002** | **12/13/2007** | **5/1/2008** | **Renewal** |

## SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:030, Federally-enforceable permits for non-major sources.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

**EP02** Painting from Spray Cans and Touch-up Operations (not in a booth - general application inside building)
Spray cans and guns with small reservoirs are used
Transfer efficiency has been assumed to be 25%
Gravity settling has been assumed to capture 75% of the PM emissions
Construction commenced: prior to 1969

**APPLICABLE REGULATIONS:**

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975.

**1. Operating Limitations:**

Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.

***Compliance Demonstration Method:***

See ***Compliance Demonstration Method*, 2. Emission Limitations**.

**2. Emission Limitations:**

a. Pursuant to 401 KAR 61:020, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.
b. Pursuant to 401 KAR 61:020, Section 3 (2)(a), particulate emissions shall not exceed 2.58 lbs/hr.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method*:**

a. The permittee is presumed to be in compliance with the opacity requirements of paragraph 2.a based on the process description, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 9.
b. Assumptions provided in the description and an average hourly material usage rate of less than 8 gallons per hour (gal/hr) demonstrates compliance with paragraph 2.b. The 8 gal/hr usage has not been listed as an operating limitation because the maximum spray can usage rate is much lower at approximately 1 gal/hr.
c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency for painting from spray cans – 0.25 lbs PM/lb solids
$CE$ = Control efficiency - 0.75 lbs PM captured/lb PM used

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.
b. The monthly VOC, PM and HAP emission rates shall be monitored in accordance with this section and **Section D**.

**5. Specific Recordkeeping Requirements:**
a. The permittee shall maintain records of the monthly usage of raw materials.
b. The average hourly paint usage rate shall be calculated and recorded monthly.
c. The permittee shall maintain a log of the dates and times of any Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.
d. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP03 (VMV117, VMV118)** Vacublast Units.

**VMV117** – Vacu-Blast Model 300063. Unit uses 80 Mesh glass beads (or equivalent) to clean metal parts.
Control Device: 400 SCFM Single Cyclone and a 67.5 sq. ft. filter which is cleaned by manual shaking with an estimated efficiency of 99.5% to 1 micron when operated according to specifications and pressure drops across the unit are between 6" and 10" of water
Construction commenced: 1990
Rated capacity: Maximum bead usage at the maximum pressure (60 psi) is approximately 25 lbs/hr

**VMV118** – Vacu-Blast Model Mark III P Pressure Dry Honer Unit uses 80 Mesh glass beads (or equivalent) to clean metal parts.
Control Device: with a 1200 CFM Single Cyclone manufactured by Abrasive Blast Systems, Inc. and a 67.5 sq. ft. filter which is cleaned by manual shaking with an estimated efficiency of 99.5% to 1 micron when operated according to specifications and pressure drops across the unit are between 8" and 10" of water
Construction commenced: 1989
Rated capacity: Maximum bead usage at the maximum pressure (60 psi) is approximately 25 lbs/hr

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
   b. The dust collectors shall operate according to the manufacturer's specifications and recommendations at anytime a blast unit is in use.
   c. VMV117 shall be operated with pressure drop measurements across the control devices that are between 6” and 10” of water (0.29 psi and 0.36 psi).
   d. VMV118 shall be operated with pressure drop measurements across the control devices that are between 8” and 10” of water (0.29 psi and 0.36 psi).
   e. The blast units shall be maintained and operated in accordance with the manufacturer’s recommendations.

   ***Compliance Demonstration Method*:**
   Refer to **4. Specific Monitoring Requirements** and **5.a Specific Recordkeeping Requirements.**

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.
   b. Pursuant to 401 KAR 59:010, Section 3(2) particulate emissions shall not exceed 2.34 lbs/hr.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method*:**

a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. The log shall note:
   i. whether any air emissions (except for water vapor) were visible from the vent/stack;
   ii. all emission points from which visible emissions occurred; and
   iii. whether the visible emissions were normal for the process.
   If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.

c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = W \times G \times \frac{(1-CE)}{CE}$$

Where: $W$ = lbs of waste captured by control device per month = the weight of the waste container before the Vacublast units have waste material removed (in lbs) **minus** weight of waste container after removing materials captured by each control device from the Vacublast units (in lbs)

$G$ = inside building gravity settling – assumed to be 0.5 unless tested

$$\frac{(1-CE)}{CE} = \frac{\text{lbs of waste not captured}}{\text{lbs of waste captured by control device}}$$

$CE$ = Control efficiency – 0.99 lbs of PM captured/lb of PM used

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

a. Resistance to airflow across the control device shall be monitored by use of a magnahelic gauge to monitor pressure drops from the blast chamber to the fan inlet.

b. Pressure drop readings shall be taken at a minimum of once per shift during operation.

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

a. Pressure drop across the control device;

b. The permittee shall maintain records of preventive maintenance and inspection of the particulate control devices, including all maintenance that affects proper operation along

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

with the date and reason, in accordance with **7. Specific Control Equipment Operating Conditions**.

c. Results of any Method 5 particulate matter or Method 9 opacity tests;
d. Weekly visible opacity observation records as specified in **2.a Emission Limitations *Compliance Demonstration Method*.**
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Also refer to **Section D.6 Source Reporting Requirements**.

**7. Specific Control Equipment Operating Conditions:**

Preventive maintenance shall be performed, for all particulate control devices, in accordance with the manufacturers' recommendations.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP04 (VMV06)** Rotoblaster.
Pangborn Blast Cleaning Systems
Model #: GLK-7
Control Device: 1,016 sq. ft. filter which is cleaned by shaking.
Control efficiency: 99.9% to 5 microns when operated at 1440 SCFM and pressure drops across the filter are between 2" and 3" of water.
Shot blasting media: S-200 steel shot blasting beads (or equivalent)
Construction commenced prior to: 1969, completely replaced in 2000.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

**1. Operating Limitations:**

a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
b. The dust collector shall operate according to the manufacturer's specifications and recommendations at anytime the blast unit is in use.
c. The blast unit shall be operated with pressure drop measurements across the control device that are between 2" and 3" of water (0.07 psi and 0.11 psi).
d. The blast unit shall be maintained and operated in accordance with manufacturer's recommendations.

***Compliance Demonstration Method*:**

Refer to **4. Specific Monitoring Requirements** and **5.a Specific Recordkeeping Requirements.**

**2. Emission Limitations:**

a. Pursuant to 401 KAR 59:010, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.
b. Pursuant to 401 KAR 59:010, Section 3(2) particulate emissions shall not exceed 2.34 lbs/hr.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method*:**

a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.
b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = W \times \frac{(1-CE)}{CE}$$

Where: $W$ = lbs of waste captured by control device per month = the weight of the waste container before the Rotoblaster units have waste material removed (in lbs) **minus** weight of waste container after removing materials captured by each control device from the Rotoblaster units (in lbs)

$$\frac{(1-CE)}{CE} = \frac{\text{lbs of waste not captured}}{\text{lbs of waste captured by control device}}$$

$CE$ = *Control efficiency – 0.999 lbs of PM captured/lb of PM used*

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
a. Resistance to airflow across the control device shall be monitored by use of a magnahelic gauge to monitor pressure drops from the blast chamber to the fan inlet.
b. Pressure drop readings shall be taken at a minimum of once per shift during operation.

**5. Specific Recordkeeping Requirements:**
The permittee shall maintain records of the following information:
a. Pressure drop across the control device;
b. The permittee shall maintain records of preventive maintenance and inspection of the particulate control devices, including all maintenance that affects proper operation along with the date and reason, in accordance with **7. Specific Control Equipment Operating Conditions**.
c. Results of any Method 5 particulate matter or Method 9 opacity tests;
d. Weekly visible opacity observation records as specified in **2.a Emission Limitations *Compliance Demonstration Method***.
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Also refer to **Section D.6 Source Reporting Requirements**.

**7. Specific Control Equipment Operating Conditions:**
Preventive maintenance shall be performed, for all particulate control devices, in accordance with the manufacturers' recommendations.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP05 (VMV09)** Abrasive blasting of locomotive parts and engines

EP05 is a 100 ft. by 60 ft. by 30 ft. building equipped with 2 blasters: an Impco Autofill Blaster (Serial # 97-111) and another blaster for a nearly identical but separate process (the blasters are not designed to be operated together)

Control Device: Four (4) 26,000 acfm baghouses: each is a Model 528 CT 2 manufactured by Carborundum Dust Control Systems and uses pulse air cleaning. Each baghouse has 550 bags (each bag is 5" in diameter and 132" long)

Control Efficiency: 95% of the media processed is assumed to fall on the floor of the enclosure and 5% is assumed to leave the structure through the ventilation system (the manufacturer estimates 99% control efficiency)

Construction commenced: 1969, Modified: 1999

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

**1. Operating Limitations:**

a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
b. The building door shall be closed during blasting.
c. The ventilation system shall be operating with fabric filters in place and providing at least 20 air changes per hour during blasting.
d. All operating baghouses shall use magnahelic gauges to determine pressure drop while blasting is performed.
e. Baghouse pressure drops shall be between 1" (0.04 psi) and 4" (0.14 psi) of water during blasting. Pressure measurements more than ± 40% from 2.1" of water shall indicate an excursion from optimal operation.
f. All new excursions shall result in a maintenance inspection of the affected control device, and bags shall be checked for clogging, holes, or other defects.

***Compliance Demonstration Method:***

a. Air changes per hour shall be calculated as follows:

$$Air\ Changes = \sum \frac{Volumetric\ flow rate\ produced\ by\ baghouses}{Volume\ of\ building}$$

Volumetric flowrates from manufacturer specifications are accepted as long as the baghouses have not been modified. The volume of the building will equal width times length, times average height.

b. Also, refer to **4. Specific Monitoring Requirements** and **5.a Specific Recordkeeping Requirements.**

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**2. Emission Limitations:**

a. Pursuant to 401 KAR 59:010, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.
b. Pursuant to 401 KAR 59:010, Section 3(2) particulate emissions shall not exceed 4.14 lbs/hr, based on a process weight rate of 2,520 lbs/hr.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method*:**

a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. The log shall note:
   i. whether any air emissions (except for water vapor) were visible from the vent/stack;
   ii. all emission points from which visible emissions occurred; and
   iii. whether the visible emissions were normal for the process.
   If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.
b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.
c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = B \times (1 - CE)$$

Where: B = lbs of blasting material used per month
*CE* = Control efficiency – 0.9995 lbs of PM captured/lb of PM used

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

a. A magnetic gauge shall be used to monitor pressure drops across the control device.
b. The pressure drop across the control device shall be monitored at least once per shift when each unit is in operation to verify compliance with Operating Limitations.

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

a. Pressure drop across the control device;
b. The permittee shall maintain records of preventive maintenance and inspection of the particulate control devices, including all maintenance that affects proper operation along with the date and reason, in accordance with **7. Specific Control Equipment Operating Conditions**.
c. Results of any Method 5 particulate matter or Method 9 opacity tests;

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d. Weekly visible opacity observation records as specified in **2.a Emission Limitations *Compliance Demonstration Method*.**
e. All excursion inspections and maintenance that affects proper operation shall be recorded and include date and reason.
f. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements**.
b. Also refer to **Section D.6 Source Reporting Requirements**.

**7. Specific Control Equipment Operating Conditions:**

Preventive maintenance shall be performed, for all particulate control devices, in accordance with the manufacturers' recommendations.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP06 (VMV11)** Arc Welding.

VMV11 is comprised of 3 General Welding Equipment wire fed welding units, 60 General Welding Equipment stick-type welding units, and 43 General Welding Equipment combination welding units

Each unit has a maximum wire usage rate of 1.1 lbs/hr (as determined through field-testing)

These welding units have no physical control equipment for pollution reduction but welding inside of any semi-enclosed building has been assumed to provide a 75% control efficiency

VMV11 construction commenced prior to: 1969

**APPLICABLE REGULATIONS:**

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975.

**1. Operating Limitations:**

Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.

**2. Emission Limitations:**

a. Pursuant to 401 KAR 61:020, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.
b. Pursuant to 401 KAR 61:020, Section 3(2) particulate emissions shall not exceed 2.58 lbs/hr.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method*:**

a. Refer to **4.b Specific Monitoring Requirements** to demonstrate compliance with paragraph 2.a.
b. The permittee is considered to be in compliance with paragraph 2.b based on the process description and use of AP-42 emission factor (see below), but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.
c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = W \times EF \times (1 - CE)$$

Where: $W$ = lbs of welding wire used per month
$EF$ = Most Current AP-42 Emission factor
$CE$ = Control efficiency – 0.75 lbs of PM captured/lb of PM generated

**3. Testing Requirements:**

None

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**4. Specific Monitoring Requirements:**

a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.

b. The permittee shall comply with the following to demonstrate compliance with **2.a Emission Limitation**:

i. Monitoring (with date and time recorded) in accordance with 40 CFR 60 Appendix A, Method 9, by a representative of the permittee who is a certified visible emissions observer, shall be performed at least once a quarter during typical operation.

ii. The permittee shall maintain a list of all individuals that monitor visible emissions in accordance with paragraph 4.b.i. Individuals certified as visible emissions observers shall be noted on the list along with the date of certification.

**5. Specific Recordkeeping Requirements:**

The permittee shall maintain records of the following information:

a. Results of any Method 5 particulate matter tests;

b. Method 9 opacity test results in accordance with **4.b Specific Monitoring Requirements**;

c. All excursion inspections and maintenance that affects proper operation including date and reason.

d. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements**.

b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP07 (VMV15)** Heat Treatment Furnace

VMV15 is a Mahr Furnace used for heat treatment of handrails. The furnace was converted from one diesel fuel fired burner (the burner had a maximum fuel rating of 10 gal/hr) to one natural gas fired burner in 2000.

Maximum capacity: 840,000 British thermal units per hour (Btu/hr))

VMV15 commenced construction: approximately 1927, modified in 2000

**APPLICABLE REGULATIONS:**

None

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2. Emission Limitations** are not exceeded.
   b. Only natural gas shall be used as a fuel.
   c. Proper operation and maintenance shall be practiced.

   ***Compliance Demonstration Method:***
   See **Specific Monitoring, Recordkeeping, and Reporting Requirements** below.

2. **Emission Limitations:**
   Refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

   ***Compliance Demonstration Method:***
   Refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor the source wide amount of natural gas used on a monthly basis.
   b. The monthly VOC, PM, $NO_x$ and HAP emission shall be monitored in accordance with this section and **Section D**.

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records of the following information:
   a. The monthly source wide amount of natural gas fired;
   b. A copy of the burner manufacturer's operating and maintenance specifications shall be maintained and made available to the Division upon request;
   c. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded;
   d. All maintenance that affects proper operation including date and reason;
   e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**6. Specific Reporting Requirements:**

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**

b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP08** Indirect Heat Exchangers

EP08 consists of the following 3 boilers: (1) Sellers 50HP Model 77 Commodore Boiler with a rated capacity of 2.093 mmBtu/hr, (1) 300HP 105E 150# Sellers Engineering Boiler with a rated capacity of 12.555 mmBtu/hr, and (1) Sellers 100HP 77C 150# Boiler with a rated capacity of 4.187 mmBtu/hr

Natural gas is burned to produce process heat in all boilers

EP08 construction commenced: 1987

**APPLICABLE REGULATIONS:**

401 KAR 59:015**,** New Indirect Heat Exchangers, applicable to affected facilities with a capacity of 250 million Btu/hr heat input or less and greater than one (1) million Btu/hr, and commenced after April 9, 1972, limits particulate and sulfur dioxide emissions.

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
   b. Only natural gas shall be used as a fuel.
   c. Proper operation and maintenance shall be practiced.

   ***Compliance Demonstration Method:***

   See **Specific Monitoring, Recordkeeping, and Reporting Requirements** below.

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:015, Section 4(1)(c), emissions of particulate matter (PM) from the combustion of natural gas shall not exceed 0.4824 lb/mmBtu actual heat input, based on a three-hour average.
   b. Pursuant to 401 KAR 59:015, Section 4 (2), visible emissions shall not exceed twenty (20) percent opacity based on a six-minute average except:
      i. A maximum of forty (40) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning of the fire box or blowing soot.
      ii. For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
   c. Pursuant to 401 KAR 59:015, Section 5(1)(c), sulfur dioxide ($SO_2$) emissions shall not exceed 2.313 lb/mmBtu actual heat input, based on a 24-hour average.
   d. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

   ***Compliance Demonstration Method:***

   a. While burning natural gas, the affected facilities are considered to be in compliance with particulate matter, sulfur dioxide and opacity standards.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***.

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
The permittee shall monitor the source wide amount of natural gas used on a monthly basis.

**5. Specific Recordkeeping Requirements:**
The permittee shall maintain records of the following information:
a. The monthly source wide amount of natural gas fired.
b. A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to the Division upon request.
c. Any deviation from manufacturer's operating and maintenance specifications.
d. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements.**
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Also refer to Section **D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP09 (VMV08)** Train Locomotive Spray Booth
Rated capacity: 2 HVLP guns (or equivalent) rated at 14 gal/hr each
Manufacturer: JBI
Control Device: Water walls
Control Efficiency: 90% of the particulate emissions
Transfer efficiency has been assumed to be 65%
Construction commenced: 1973

**APPLICABLE REGULATIONS:**

401 KAR 61:020, *Existing Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates commenced before July 2, 1975.

**1. Operating Limitations:**

a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
b. The water walls shall be in operation anytime the spray booth is in use.
c. Painting emission shall not bypass the control device.
d. All booth doors shall be closed while painting except to allow for momentary entry and exit requirements of personnel.
e. Also see **7. Specific Control Equipment Operating Conditions.**

***Compliance Demonstration Method:***

See **Specific Monitoring, Recordkeeping, and Reporting Requirements** below.

**2. Emission Limitations:**

a. Pursuant to 401 KAR 61:020, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than forty (40) percent opacity.
b. Pursuant to 401 KAR 61:020, Section 3 (2)(a), particulate emissions shall not exceed 2.58 lbs/hr.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method:***

a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. The log shall note:
   i. whether any air emissions (except for water vapor) were visible from the vent/stack;
   ii. all emission points from which visible emissions occurred; and
   iii. whether the visible emissions were normal for the process.
   If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.
c. The spray booth system VMV08 shall be considered in compliance with paragraphs 2.a and 2.b when the control system is operated in accordance with **1. Operating Limitations** and **7. Specific Control Equipment Operating Conditions** unless testing is deemed necessary.
d. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs / month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency – 0.65 lbs PM/lb solids
$CE$ = Control efficiency – 0.9 lbs of PM captured/lb PM used

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
a. The permittee shall install pressure gauges as an indicator of water flow to the spray booths' wash walls. The permittee will then establish a range of pressure readings corresponding to adequate water flow rates for each booth.
   i. To establish such a pressure range the permittee may:
      A. Request this information from the spray booth manufacturer; and
      B. With the equipment in new and clean condition, perform visual inspection of the water wash, adjust the water flow, and establish upper and lower pressure limits by trial and error. Record all data and observations used to establish such limits, and maintain this data on-site.
   ii. Readings from the pressure gauges shall be taken at a minimum of once per shift during operation.
   iii. The permittee shall make a verification of the uniformity of the water sheet across the surface of the water wall once per shift during operation.
b. The water walls and spring loaded plenum vents disconnected from the water wall control device shall be visually inspected at least once per shift (when any painting is done in the booth during the period).

**5. Specific Recordkeeping Requirements:**
a. The permittee shall maintain a log of the water wall observations as required by **4. Specific Monitoring Requirements**. Note the time, date, and identity of the personnel making the record, for each water flow reading. If the booth is not in operation during a given time period this fact should be noted. If the flow rate is outside of the manufacturer's recommended range, an inspection of the control device shall be made, corrective action taken, and a log of these activities shall be maintained.
b. The permittee shall maintain records of weekly qualitative visible emission observations, including the date and time of the observation.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. The permittee shall maintain records of corrective actions taken as a result of seeing visible emissions.
d. The permittee shall maintain records of any Method 9 readings performed.
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. When corrective actions are required due to an opacity exceedance as noted in **2.a Emission Limitations,** the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions took to correct the deviation; and
   iv. A statement of the cause of each deviation.

   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F (5) and (6)**.
b. Also refer to **Section D.6 Source Reporting Requirements**.

**7. Specific Control Equipment Operating Conditions:**

a. The water walls shall be maintained and operated in accordance with the manufacturer's recommendations unless otherwise required in this permit.
b. The water walls shall be operated so that a sheet of water covers the collection walls (as designed to be operated).

   Note: A significant amount of water falling as drops is an indication that the wall is not being covered with water and that the control device is not operating properly.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP09 (VMV126)** Train Locomotive Spray Booth.
Rated capacity: 2 HVLP guns (or equivalent) rated at 14 gal/hr each
Manufacturer: JBI
Control Device: A.J. Draille filters or equivalent
Control Efficiency: 99.9% of the particulate emissions
Transfer efficiency has been assumed to be 65%
Construction commenced: 2000

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
   b. The particulate filters must be in place and operational according to the manufacturer's specifications and recommendations, any time that spray booth system VMV126 is in use.
   c. Spray booth system VMV126 shall have a functioning gauge to measure pressure drop across the particulate filters.

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter from the spray booth shall not exceed 2.34 lb/hr.
   b. Pursuant to 401 KAR 59:010, Section 3(1), the opacity of visible emissions from the spray booth shall not equal or exceed 20 percent.
   c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

***Compliance Demonstration Method:***

a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. The log shall note:
   i. whether any air emissions (except for water vapor) were visible from the vent/stack;
   ii. all emission points from which visible emissions occurred; and
   iii. whether the visible emissions were normal for the process.

   If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in accordance with 40 CFR 60 Appendix A, Method 5.
c. The spray booth system VMV126 shall be considered in compliance with paragraphs 2.a and 2.b when the control systems are operated in accordance with **1. Operating Limitations**. Also see **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**
d. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs / month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency – 0.65 lbs PM/lb solids
$CE$ = Control efficiency – 0.999 lbs of PM captured/lb PM used

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
The permittee shall monitor and maintain records of the following parameters:
a. Resistance to airflow across the control device shall be monitored by use of a magnahelic gauge to monitor pressure drops.
b. Pressure drop readings shall be taken at a minimum of once per shift during operation.

**5. Specific Recordkeeping Requirements:**
a. The permittee shall maintain a log of the pressure drop readings across the particulate filters, including the time, date, identity of the personnel making the record, and dates of filter replacements. For any booth that is not in operation on a given date, this fact should also be noted.
b. The permittee shall maintain records of weekly qualitative visible emission observations, including the date and time of the observation.
c. The permittee shall maintain records of corrective actions taken as a result of seeing visible emissions.
d. The permittee shall maintain records of any Method 9 readings performed
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. When corrective actions are required due to an opacity exceedance as noted in **2.b Emission Limitations,** the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions took to correct the deviation; and
   iv. A statement of the cause of each deviation.
   Copies of these records shall be submitted as a part of the semiannual reporting as required

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

in **Section F (5) and (6)**.

b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP10** Direct Heat Units – Natural Gas Usage

EP 10 consists of the number and type direct heating units listed below having a total heat input capacity of 192.100 mmBtu/hr

Controls: None

Installation date: 1987

- 14 Rapid heaters - Model # 3089
  Capacity: 13 mmBtu/hr, each
- 1 Rapid heater - Model # 3049
  Capacity: 4.25 mmBtu/hr
- 2 Rupp Industries heaters - Model # CFA-20
  Capacity: 1.123 mmBtu/hr, each
- 2 Rapid heaters - Model # 2000
  Capacity: 0.68 mmBtu/hr, each
- 2 Hastings Industries heaters - Model # GL300XE
  Capacity: 0.228 mmBtu/hr, each
- 2 Modine heaters - Model # PA200AB
  Capacity: 0.2 mmBtu/hr, each
- 3 Modine heaters - Model # PA200AB
  Capacity: 0.152 mmBtu/hr, each
- 5 Central Environmental Systems heaters - Model # TUS120B960A0
  Capacity: 0.12 mmBtu/hr, each
- 1 Empire heater - Model # VH-1150-FSP
  Capacity: 0.1155 mmBtu/hr
- 3 Modine heaters - Model # PA75AB
  Capacity: 0.075 mmBtu/hr, each
- 2 Modine heaters - Model # PAE75C
  Capacity: 0.075 mmBtu/hr, each
- 2 Bonanza heaters - Model # B-1000
  Capacity: 0.0333 mmBtu/hr, each

**APPLICABLE REGULATIONS:**

None

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2. Emission Limitations** are not exceeded.
   b. Only natural gas shall be used as a fuel.

2. **Emission Limitations:**
   Refer to **Section D.3 Source Emission Limitations**, for source wide pollutant emission limitations.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

***Compliance Demonstration Method:***

a. While burning natural gas, the affected facilities are considered to be in compliance with particulate matter, sulfur dioxide and opacity standards.

b. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method.***

**3. Testing Requirements:**

None

**4. Specific Monitoring Requirements:**

The permittee shall monitor and maintain monthly records of the total source wide natural gas fuel usage.

**5. Specific Recordkeeping Requirements:**

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements.**

b. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**

b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP13 (VMV18-VMV20, VMV34, VMV37-VMV41, VMV43, VMV51-VMV56, VMV121)**
Degreasers

Description: All units except VMV121 are custom built dip tank style cold cleaning degreasers with tank covers. VMV121 is a Magnus spray sink style degreaser with a tank cover. VMV18, VMV34, VMV39, VMV43, VMV51, VMV52, VMV55, and VMV121 use pumped agitation. VMV121 has a sprayer rated for use at 50 psi.
VMV121 construction commenced: 1991
All other units' construction commenced: Prior to 1980

**APPLICABLE REGULATIONS:**
None

1. **Operating Limitations:**
   Material usage shall be limited such that emission limitations set forth in **2. Emission Limitations** are not exceeded.

2. **Emission Limitations:**
   Refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   The permittee shall monitor and record the amount of solvent usage in the degreasing units listed in this section in accordance with **Section D.5 Source Recordkeeping Requirements**.

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records in accordance with **Section D.5 Source Recordkeeping Requirements**.

6. **Specific Reporting Requirements:**
   a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements**
   b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP17 (VMV44 and VMV45)** Dip Coating of Metal Parts

**VMV44:** Devine Drawing 241-H-40 dip tank used for vacuum pressure impregnation of locomotive parts
Construction commenced: 1982

**VMV45**: 800 gallon dip tank used for sealing traction motors and a 175 gallon dip tank used for dipping small rotating equipment
Construction commenced: 1972

Five (5) ovens used to cure the coatings applied in the dip tanks. The ovens are used as needed and items from any tank may be cured in any oven, provided the size is appropriate. Three (3) of the ovens are heated by combustion of natural gas (1 with a 700,000 Btu/hr maximum heat input burner and 2 with a 425,000 Btu/hr maximum heat input burner), one (1) is heated by electricity, and one (1) is heated by steam.

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
   b. Only natural gas shall be used as a fuel in the ovens.
   c. Proper maintenance shall be practiced.

   ***Compliance Demonstration Method:***
   See **Specific Monitoring, Recordkeeping, and Reporting Requirements** below.

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010, Section 3 (1)(a), no person shall cause, suffer, allow or permit any continuous emission into the open air from a control device or stack associated with any affected facility which is equal to or greater than twenty (20) percent opacity.
   b. Pursuant to 401 KAR 59:010, Section 3(2) particulate emissions shall not exceed 2.34 lbs/hr.
   c. Also refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

   ***Compliance Demonstration Method:***
   The permittee shall be considered in compliance with paragraphs 2.a and b while burning natural gas fuel. Also refer to **Section D.3 Source Emission Limitations,** ***Compliance Demonstration Method.***

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
The permittee shall monitor and maintain monthly records of the total source wide natural gas fuel usage.

**5. Specific Recordkeeping Requirements:**
The permittee shall maintain records of the following information:
a. The monthly source wide amount of natural gas fired.
b. A copy of the burner manufacturer's operating and maintenance specifications shall be maintained and made available to the Division upon request.
c. Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation.
d. Dates and descriptions of maintenance that affects proper operation.
e. All relevant compliance testing results shall be recorded and maintained by the permittee.
f. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP18 (VMV122)** Testing of Locomotive Engines

VMV122 – 2 test cells (A and B), each with 2-3 ft diameter, 70 ft stacks
Test cell A is west of test cell B
Test cell A construction commenced: prior to 1975
Test cell B construction commenced: after July 2, 1975

**APPLICABLE REGULATIONS:**
None

1. **Operating Limitations:**
   Material usage shall be limited such that emission limitations set forth in **2. Emission Limitations** are not exceeded.

2. **Emission Limitations:**
   Refer to **Section D.3 Source Emission Limitations** for source wide pollutant emission limitations.

   ***Compliance Demonstration Method:***
   Refer to **Section D.3 Source Emission Limitations,** ***Compliance Demonstration Method***. PM emissions shall be calculated as follows:

   $$PM\ Emitted\ (lbs/month) = gallons\ of\ diesel\ used\ per\ month \times EF$$

   Where: $EF$ = Procedures for Emission Inventory Preparation – Vol. IV: Mobile Sources – 0.016 lbs of PM/gal of diesel used

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   a. The permittee shall monitor diesel fuel usage as necessary to demonstrate compliance with all requirements of this permit.
   b. The monthly VOC, $NO_x$, PM, and HAP emission shall be monitored.

5. **Specific Recordkeeping Requirements:**
   The permittee shall maintain records of the following information:
   a. Monthly records of the amount and type of fuel used in each engine testing for each test cell.
   b. Also refer to **Section D.5 Source Recordkeeping Requirements**.

6. **Specific Reporting Requirements:**
   a. The permittee shall report any exceedances or excursions from emission limitations or operating limitations in accordance with **Section F- Monitoring, Recordkeeping, and Reporting Requirements.**
   b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP19 (VMV124 and VMV125)** Rod and Head Spraying
Air guns rated capacity for each: 11.25 gal/hr (as determined through field-testing)
Control Device: SUPRA V filters or equivalent
Control Efficiency: 98% of the particulate emissions
Transfer efficiency has been assumed to be 25%
Construction commenced: prior to 1980

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations*, applies to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

**1. Operating Limitations:**

Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.

***Compliance Demonstration Method:***

Refer to **4. Specific Monitoring Requirements**, and **5. Specific Recordkeeping Requirements.**

**2. Emission Limitations:**

a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter from each spray booth shall not exceed 2.34 lb/hr.
b. Pursuant to 401 KAR 59:010, Section 3(1), the opacity of visible emissions from each spray booth shall not equal or exceed 20 percent.
c. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method:***

a. To demonstrate compliance with paragraph 2.a.
   i. The particulate filters must be in place and operational according to the manufacturer's specifications and recommendations, any time that spray booth systems VMV124 and VMV125 are in use.
   ii. Filters shall be replaced when determined to be ineffective (as determined through visual inspection).
   iii. When the filters are operated in accordance with the manufacturer's recommendations, compliance is assumed.
b. To demonstrate compliance with paragraph 2.b, the permittee shall perform a qualitative visual observation of the opacity of emissions from each unit on a weekly basis and maintain a log of the observations. If the visible emissions from the units are seen (not including condensed water vapor within plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.
c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$PM\ Emitted\ (lbs / month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency – 0.25 lbs PM/lb solids
$CE$ = Control efficiency – 0.98 lbs of PM captured/lb PM used

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
a. Particulate filters shall be visually inspected once per shift during operation.
b. The permittee shall monitor and record the amount of coating material usage in accordance with **Section D.5 Source Recordkeeping Requirements**.

**5. Specific Recordkeeping Requirements:**
a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements**. This shall include dates of filter replacements. For any booth that is not in operation on a given date, this fact should also be noted.
b. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**
a. When corrective actions are required due to an opacity exceedance as noted in **2.a Specific Monitoring Requirements**, the permittee shall submit the following information from the control device inspection and repair log:
   i. A description of the deviation;
   ii. The date and time period of the deviation;
   iii. Actions took to correct the deviation; and
   iv. A statement of the cause of each deviation.
   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F (5) and (6)**.
b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP20 (VMV105)** Painting of engines and other parts.

EP20 – 30 ft deep open face spray paint booth with a 21,700 scfm ventilation system
Manufacturer: Binks Manufacturing
Controls: AF 29-359 double pleated cardboard filters (or equivalent)
Control efficiency: 97% at removing particulates when the air velocity through the filter is 150 ft/min (other equivalent roll or blanket-type filters may also be used)
Transfer efficiency: assumed to be 65%
Either, a DeVilbis HVLP gun (or equivalent) rated at 14 gal/hr, or a Graco air-assist spray gun (or equivalent) rated at 7.97 gal/hr may be used in the booth
Constructed: 1999

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

1. **Operating Limitations:**
   Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.

   ***Compliance Demonstration Method:***
   Refer to **4. Specific Monitoring Requirements**, and **5. Specific Recordkeeping Requirements.**

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010, Section 3(2), emissions of particulate matter from each spray booth shall not exceed 2.34 lb/hr.
   b. Pursuant to 401 KAR 59:010, Section 3(1), the opacity of visible emissions from each spray booth shall not equal or exceed 20 percent.
   c. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

   ***Compliance Demonstration Method:***
   a. To demonstrate compliance with paragraph 2.a.
      i. The particulate filters must be in place and operational according to the manufacturer's specifications and recommendations, any time that spray booth system VMV105 in use.
      ii. Filters shall be replaced when determined to be ineffective (as determined through visual inspection).
      iii. When the filters are operated in accordance with the manufacturer's recommendations, compliance is assumed.
   b. To demonstrate compliance with paragraph 2.b, the permittee shall perform a qualitative visual observation of the opacity of emissions from each unit on a weekly basis and maintain a log of the observations. If the visible emissions from the units are seen (not including condensed water vapor within plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

be initiated of control equipment for all necessary repairs.

c. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs / month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency – 0.65 lbs PM/lb solids
$CE$ = Control efficiency – 0.97 lbs of PM captured/lb PM used

**3. Testing Requirements:**
See **Section D.4 Source Testing Requirements**.

**4. Specific Monitoring Requirements:**

a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.
b. Particulate filters shall be visually inspected once per shift during operation.
c. The monthly VOC, HAP and PM emission shall be monitored.
d. Also refer to **Section D - Source Emission Limitations**.

**5. Specific Recordkeeping Requirements:**

a. The permittee shall maintain records in accordance with **4. Specific Monitoring Requirements**. This shall include dates of filter replacements. For any booth that is not in operation on a given date, this fact should also be noted.
b. The permittee shall maintain records of any Method 5 and Method 9 test results.
c. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. When corrective actions are required due to an opacity exceedance as noted in Section **2. Emission Limitations a.** the permittee shall submit the following information from the control device inspection and repair log.
   i. A description of the deviation.
   ii. The date and time period of the deviation
   iii. Actions taken to correct the deviation.
   iv. A statement of the cause of each deviation.

   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F (5) and (6)**.
b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP21 (PAU 1-4)** Painting of locomotive insides and other painting outside of permanent booths.

This emission point can change its description from job-to-job
EP21 will always utilize an Abatement Technologies, HEPA-Aire H 2000HP, ventilation device (4 of these were part of the application)
The HEPA-Aire H 2000HP is designed to pull up to 2,000 scfm through a 3-stage filter which has a cross section area of 4 $ft^2$
The filter has been assumed to be 95.9% efficient at removing particulates
Transfer efficiency has been assumed to be 65%
EP21 will also always utilize one DeVilbis HVLP gun (or equivalent) rated at 14 gal/hr
Construction: 1999

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

**1. Operating Limitations:**

a. Painting shall only be done after the volume of the enclosed painting area has been determined and the painting area is ventilated at a rate of at least 20 air changes per hour through the use of one (1) or more of the ventilation devices.
b. Particulate filters must be in place and operational according to the manufacturer's specifications and recommendations at anytime a listed spray booth is in use.
c. The ventilation systems shall be in place and maintained in accordance with the manufacturer's recommendations.
d. Painting shall only be done in areas that have been enclosed (allowing for make-up air and exhaust ventilation).
e. Make-up air openings or ports shall be effectively obstructed to PM emissions.
f. Painting shall only be done in areas that are adequately ventilated based on smoke tube observations.
g. Smoke tube observations shall be made for each enclosure where painting is to be performed unless specifically exempted in this condition. Observations shall be made at all points where particulate escape might be likely (effectively obstructed make-up air ports would not be a likely point for particulate escape). If the enclosure is reconfigured, ventilation adequacy shall be reevaluated (temporary alteration of the enclosure that does not alter the demonstrated design of the enclosure is not a reconfiguration). With the following exception: if the same enclosure design is utilized on all locomotives in each locomotive painting batch and smoke tube observations for the first locomotive of the batch establish that the enclosure design is effective, all other locomotives in the batch shall be exempted from smoke tube testing.
h. The total material input usage to EP21 shall be limited such that the permittee is in compliance with the source-wide emission limitations specified at **2.c Emission Limitations**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

***Compliance Demonstration Method:***

a. To demonstrate compliance with paragraph 1.a, air charges per hour shall be determined as follows:

$$Air\ changes = \frac{\sum Volumetric\ Flowrates\ produced\ by\ the\ ventilation\ devices}{Volume\ of\ the\ enclosure}$$

Volumetric flowrates from manufacturer specifications are accepted as long as the ventilation devices have not been modified. The volume of the enclosure can be directly measured using any scientifically sound method or may be estimated as a volume equal to the maximum length times the maximum width times the maximum height of the enclosure.

b. To demonstrate compliance with paragraph 1.e, the permittee can obstruct make-up air ports through several methods. For example, positioning make-up air ports more than 20 feet away from any painting will effectively obstruct PM emissions. Using filters at the make-up air ports would effectively obstruct PM emissions. Using trap doors that open into another compartment would effectively obstruct PM emissions. Driving air into the enclosure through the make-up air ports would also effectively obstruct PM emissions. Other equally effective obstructions may be used but using unobstructed opening less than 20 feet away from any painting will require a compliance demonstration (testing) to establish that the configuration is effectively obstructing PM emissions and **2.a and 2.b Emission Limitations** are not being violated.

c. Adequate ventilation shall be determined through use of smoke tube observations to demonstrate compliance with 1.f.

d. Refer to **4. Specific Monitoring Requirements**, and **5. Specific Recordkeeping Requirements.**

**2. Emission Limitations:**

a. Pursuant to 401 KAR 59:010, Section 3(1)(a) visible emissions from the spray booth shall not equal or exceed 20 percent.

b. Pursuant to 401 KAR 59:010, Section 3(2), particulate matter emissions from the spray booth shall not exceed 2.34 lbs/hr.

c. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

***Compliance Demonstration Method:***

a. If deemed necessary by the Division the permittee shall perform Method 9 and 5 tests in accordance with 40 CFR 60 Appendix A.

b. The permittee shall be considered in compliance with paragraphs 2.a and 2.b when EP21 is operated in accordance with **1. Operating Limitations** unless testing is deemed necessary.

c. Refer to **4. Specific Monitoring Requirements, and 5. Specific Recordkeeping Requirements** below.

d. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = S \times (1 - TE) \times (1 - CE)$$

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Where: *S* = lbs of solids used per month
*TE* = Transfer efficiency – 0.65 lbs PM/lb solids
*CE* = Control efficiency – 0.959 lbs of PM captured/lb PM used

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**
a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.
b. The method for demonstrating compliance with **1.e Operating Limitation** shall be described and noted for each enclosure. Describe and note any alterations that result in a net change to the enclosure.
c. Smoke tube observations described in **1.g Operating Limitation** shall be monitored each time smoke tube observations are performed.
d. Particulate filters shall be visually inspected once per shift during operation.
e. The monthly VOC, HAP and PM emissions shall be monitored.

**5. Specific Recordkeeping Requirements:**
a. The permittee shall maintain records of the monthly usage of raw material.
b. The permittee shall maintain records of daily filter inspections including the dates of filter replacements. For any booth that is not in operation on a given date, this fact should also be noted.
c. The permittee shall maintain a log of the dates and times of each Method 9 test and either the results of the test, or reasons for not performing a Method 9 test.
d. A checklist shall be used to record the volume and ventilation rate for each painting enclosure (including the enclosures exempted from smoke tube testing). Observations resulting from performance of all monitoring requirements shall also be recorded on the checklist (if a monitoring requirement has been exempted, the initial reference monitoring may be noted for compliance demonstration and referred to). Smoke tube observations shall include a brief description of the extent which the observations were made (for example: observed smoke when released near entry opening, exhaust system connection point, along ground, and along taped closures). The date and time of completion for the above measurements and observations shall be recorded with the checklist entries
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**6. Specific Reporting Requirements:**

a. When corrective actions are required due to an opacity exceedance as noted in **2.a Emission Limitations** the permittee shall submit the following information from the control device inspection and repair log.

i. A description of the deviation.
ii. The date and time period of the deviation
iii. Actions taken to correct the deviation.
iv. A statement of the cause of each deviation.

Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F (5) and (6)**.

b. Also refer to **Section D.6 Source Reporting Requirements**.

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

**EP 25 (SG-1)** Painting of locomotive parts

EP25 is a paint booth with a 32,500 scfm Airgaurd ventilation system at both sides of the north end of the booth (a total of 2 systems)
Filters have been assumed to capture 99% of particulate emissions
The booth has 2 DeVilbis spray guns (or equivalent)
Each gun is designed to operate at a maximum flow rate of 14 gal/hr
Transfer efficiency has been assumed to be 65%
Construction commenced: 1995

**APPLICABLE REGULATIONS:**

401 KAR 59:010, *New Process Operations,* applicable to each affected facility or source, associated with a process operation, which is not subject to another emission standard with respect to particulates, commenced on or after July 2, 1975.

1. **Operating Limitations:**
   a. Material usage shall be limited such that emission limitations set forth in **2.c Emission Limitations** are not exceeded.
   b. The particulate filters must be in place and operational according to the manufacturer's specifications and recommendations at anytime the spray booth is in use.
   c. The booth shall be operated and maintained in accordance with the manufacturer's recommendations unless other limits in this permit specifically state otherwise.
   d. All booth doors shall be closed while painting.

   ***Compliance Demonstration Method:***
   Refer to **4.b Specific Monitoring Requirements** and **5.a Specific Recordkeeping Requirements.**

2. **Emission Limitations:**
   a. Pursuant to 401 KAR 59:010, Section 3(1)(a) limits visible emissions from each stack to less than 20% opacity.
   b. Pursuant to 401 KAR 59:010, Section 3(2) limits emissions of particulate matter from each spray booth to a maximum of 2.34 lbs/hr.
   c. Also refer to **Section D.3 Source Emission Limitations** for source wide emission limitations.

   ***Compliance Demonstration Method:***
   a. To demonstrate compliance with paragraph 2.a, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stack or control device exhaust at least once per operating week and maintain a log of the observations. The log shall note:
      i. whether any air emissions (except for water vapor) were visible from the vent/stack;
      ii. all emission points from which visible emissions occurred; and
      iii. whether the visible emissions were normal for the process.
      If visible emissions from the vents are seen, then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of control equipment for all necessary repairs.
   b. The permittee is considered to be in compliance with paragraph 2.b when complying with **1. Operating Limitations**, but if deemed necessary the Division shall require testing in

## SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

accordance with 40 CFR 60 Appendix A, Method 5.

c. The spray booth system EP25SG-1 shall be considered in compliance with paragraphs 2.a and 2.b when the control systems are operated in accordance with **1. Operating Limitations**. Also see **4. Specific Monitoring Requirements** and **5. Specific Recordkeeping Requirements.**

d. Also refer to **Section D.3 Source Emission Limitations, *Compliance Demonstration Method***. For paragraph 2.c above, PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs / month) = S \times (1 - TE) \times (1 - CE)$$

Where: $S$ = lbs of solids used per month
$TE$ = Transfer efficiency – 0.5 lbs PM/lb solids
$CE$ = Control efficiency – 0.99 lbs of PM captured/lb PM used

**3. Testing Requirements:**
None

**4. Specific Monitoring Requirements:**

a. The permittee shall monitor raw material usage as necessary to demonstrate compliance with all requirements of this permit.
b. Particulate filters shall be visually inspected once per shift during operation.
c. The monthly VOC, HAP and PM emissions shall be monitored.

**5. Specific Recordkeeping Requirements:**

a. The permittee shall maintain records of the monthly usage of raw material.
b. The permittee shall maintain records in accordance with condition 4.b above. This shall include dates of filter replacements. For any booth that is not in operation on a given date, this fact should also be noted.
c. Method 5 particulate matter test results;
d. Method 9 opacity test results.
e. Also refer to **Section D.5 Source Recordkeeping Requirements**.

**6. Specific Reporting Requirements:**

a. When corrective actions are required due to an opacity exceedance as noted in Section **2. Emission Limitations a.** the permittee shall submit the following information from the control device inspection and repair log.
   i. A description of the deviation.
   ii. The date and time period of the deviation
   iii. Actions taken to correct the deviation.
   iv. A statement of the cause of each deviation.
   Copies of these records shall be submitted as a part of the semiannual reporting as required in **Section F (5) and (6)**.
b. Also refer to **Section D.6 Source Reporting Requirements.**

## SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:030, Section 6. Although these activities are designated as insignificant the permittee must comply with the applicable regulation. Process and emission control equipment at each insignificant activity subject to an opacity standard shall be inspected monthly and a qualitative visible emissions evaluation made. Results of the inspection, evaluation, and any corrective action shall be recorded in a log.

| | Description | Generally Applicable Regulation |
|---|---|---|
| 1. | Ten (10) Enclosed Washers:<br>1 rated to hold 12,000 gallons and used for trucks<br>1 rated to hold 5,600 gallons and used for A-frames<br>1 rated to hold 3,000 gallons and used for Aluminum<br>1 rated to hold 1,950 gallons and labeled Typhoon<br>1 rated to hold 1,500 gallons and labeled Typhoon<br>1 rated to hold 1,200 gallons and labeled Typhoon<br>1 rated to hold 1,780 gallons and used for gear cases<br>1 rated to hold 1,100 gallons and used for wheel washing<br>1 rated to hold 400 gallons and manufactured by Mart<br>1 rated to hold 130 gallons and used for governors | 401 KAR 59:010 |
| 2. | Two (2) Oil/Water Separators:<br>1 rated at 25 gallons per minute<br>1 rated at 2,500 gallons per minute | None |
| 3. | EP23 Seventeen (17) Petroleum Products Storage Tanks:<br>1-10,000 Gallon Oil Tank (installed in 1955)<br>2-4,000 Gallon Oil Tanks (installed in 1960)<br>2-1,000 Gallon Oil Tanks (installed prior to 1970)<br>1-1,000 Gallon Oil Tank (installed in 1998)<br>1-500 Gallon Oil Tank (installed in 1996)<br>1-2,000 Gallon Oil Tank (installed in 1997)<br>1-4,000 Gallon Oil and Diesel Tank (installed in 1998)<br>3-10,000 Gallon Diesel Tanks (installed in 1993)<br>1-4,000 Gallon Diesel Tank (installed in 1960)<br>1-3,000 Gallon Diesel Tank (installed in 1993)<br>1-1,000 Gallon Diesel Tank (installed in 1993)<br>1-1,000 Gallon Gasoline Tank (installed in 1993)<br>1-1,000 Gallon Kerosene Tank (installed in 1993) | None |
| 4. | 7-Tanks for Storage of Liquids Containing NaOH<br>2-10,000 Gallon Storage Tanks (installed in 1994)<br>1-10,000 Gallon Storage Tank (installed in 1997)<br>1-9,000 Gallon Storage Tank (installed in 1997)<br>1-2,500 Gallon Storage Tank (installed in 1997)<br>1-2,500 Gallon Storage Tank (installed in 1998)<br>1-1,500 Gallon Storage Tank (installed in 1997) | None |
| 5. | Fugitive Emissions from Haul Roads | 401 KAR 63:010 |

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

**1.** As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

**2.** Nitrogen oxides ($NO_x$), particulate matter ($PM/PM_{10}$), volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

**3.** **Source Emission Limitations:**
To preclude the applicability of 401 KAR 52:020, *Title V permits*, and 401 KAR 51:017, *Prevention of Significant Deterioration of Air Quality*, the total annual source-wide emissions shall not exceed the following limitations on a twelve (12) consecutive month basis.

a. Nitrogen oxides ($NO_x$) emissions shall not exceed 90 tons per twelve (12) consecutive month basis;
b. Particulate matter ($PM/PM_{10}$) emissions shall not exceed 90 tons per twelve (12) consecutive month basis;
c. Volatile organic compound (VOC) emissions shall not exceed 90 tons per twelve (12) consecutive month basis;
d. Emissions of any single hazardous air pollutant (HAP) shall not exceed 9 tons per twelve (12) consecutive month basis; and
e. Emissions of combined hazardous air pollutants (HAPs) shall not exceed 22.5 tons per twelve (12) consecutive month basis.

***Compliance Demonstration Method:***
Calculate annual source-wide emissions from all operations for each month of the previous 12-month period (i.e.: for the month of January, the compliance demonstration shall be completed in February and shall include all data from February of the previous year to the last day of January). Source-wide emissions can be determined by summing all activities that release the specified pollutant as provided below.

$NO_x$ emissions shall be calculated as follows:

$$NO_x\ Emitted\ (lbs/month) = \sum NG_i \times EF_i + \sum D_j \times EF_j +$$
$$\sum any\ other\ NO_x\ emissions\ except\ those\ exempted\ under\ 401\ KAR\ 52:030$$

Where:

$NG_i$ = source wide natural gas usage in $ft^3$ per month
$EF_i$ = natural gas AP-42 emission factor – 100 lbs of $NO_x/10^6$ $ft^3$ of natural gas
$D_j$ = source wide diesel usage in gallons per month
$EF_j$ = engine test diesel emission factor – 0.345 lbs of $NO_x$/gal of diesel for diesel combustion on turbo engines and 0.483 lbs of $NO_x$/gal of diesel for diesel combustion in blower engines

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

PM emissions shall be calculated as follows:

$$PM\ Emitted\ (lbs/month) = \sum \text{EP02 spray can painting PM} + \sum \text{EP03 PM} +$$
$$\sum \text{EP04 PM} + \sum \text{EP05 and EP24 PM} + \sum \text{welding PM} +$$
$$\sum \text{testing of locomotive engines PM} + \sum (\text{source } wide \text{ natural gas usage} \times EF_{NG}) +$$
$$\sum \text{EP09 painting PM} + \sum \text{EP19 spraying PM} + \sum \text{EP20 painting PM} +$$
$$\sum \text{EP21 painting PM} + \sum \text{EP25 painting PM} -$$
$$WPR \times \sum \left( \frac{1}{S(1-TE) \times S(1-CE)} \right) +$$
$$\sum \text{any other PM emissions except } those \text{ exempted under 401 KAR 52 : 030}$$

Where:

$EF_{NG}$ = AP-42 natural gas emission factor – 7.6 lb/$10^6$ scf
WPR = lbs of waste paint recovered for off-site energy recovery for the source multiplied by the nonvolatile fraction of waste paint recovered
$S$ = lbs of solids used per month at each point with a recovered paint waste stream
$TE$ = Transfer efficiency at each point with a recovered paint waste stream
$CE$ = Control efficiency at each point with a recovered paint waste stream

VOC emissions shall be calculated as follows:

$$\text{VOC (lbs/month)} = \sum_{i=1}^{n} [G_i \rho_i W_i] - \sum R_{VOC} + \sum [NG_j EF_j] + [GR \times EF_{resin}] +$$
$$\sum [D_k \times EF_k] + [G_s \times F_G] + [K_s \times F_K] + [D_s \times F_D] + [WO_s \times EF_{WO}]$$
$$\sum any\ other\ VOC\ emissions\ except\ those\ exempted\ under\ 401\ KAR\ 52 : 030$$

Where:

$G_i$ = gallons of coatings or any other VOC containing material *i* used per month
$\rho_i$ = density of coatings or any other VOC containing material *i* (lbs/gal)
$W_i$ = weight % of a VOC in coatings or any other VOC containing material *i*
$n$ = number of coatings or any other VOC containing material used.
$R_{VOC}$ = VOC verifiably recovered from painting = lbs of paint waste × [(volatile % of waste – water % of waste)/100]
Volatile % of waste = Determined using Method 24 from 40 CFR 60 or 0.0 (absent testing)
Water % of waste = Determined using Method 24 from 40 CFR 60 or 0.0 (absent testing)
$NG_i$ = source wide natural gas usage in $ft^3$ per month
$EF_i$ = natural gas AP-42 emission factor – 5.5 lbs of VOC/$10^6$ $ft^3$ of natural gas
$GR$ = gallons of Esterlite 805 Polyester Resin used
$EF_{resin}$ = VOC emission factor for Esterlite 805 Polyester Resin – 0.9 lbs VOC/gal of resin used

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

$D_k$ = source wide diesel usage in gallons per month
$EF_k$ = engine test diesel emission factor – 0.001 lbs of VOC/gal of diesel for diesel combustion on turbo engines and 0.0525 lbs of VOC/gal of diesel for diesel combustion in blower engines
$G_s$ = gasoline stored in gallons per month
$F_G$ = gasoline tank loss factor resulting from analysis in the most current TANKS program – 23.59 lbs of VOC/1000 gal of gasoline stored
$K_s$ = kerosene stored in gallons per month
$F_K$ = kerosene tank loss factor resulting from analysis in the most current TANKS program – 0.12 lbs of VOC/1000 gal of kerosene stored
$D_s$ = diesel stored in gallons per month
$F_D$ = diesel tank loss factor resulting from analysis in the most current TANKS program – 0.034 lbs of VOC/1000 gal of diesel stored
$WO_s$ = waste oil stored in gallons per month
$EF_{WO}$ = waste oil tank loss factor resulting from analysis in the most current TANKS program – 0.0003 lbs of VOC/1000 gal of waste oil stored

Single HAP emissions shall be calculated as follows:

$$\text{Single HAP emitted (lbs/month)} = \sum_{i=1}^{n} \mathrm{G_i}\,\rho_i W_i - \sum R_{HAP} + \sum_{i=1}^{n} WM_j EF_j (1 - CE_j) +$$
$$\sum [NG_k EF_k] + [GR \times EF_{\text{resin}}] + \sum [D_k \times EF_k] +$$
$$\sum \textit{any other HAP emissions except those exempted under } 401\,KAR\,52:030$$

Where:
$G_i$ = gallons of coatings or any other single HAP containing material *i* used per month
$\rho_i$ = density of coatings or any other single HAP containing material *i* (lbs/gal)
$W_i$ = weight % of single HAP in coatings or any other single HAP containing material *i*.
$n$ = *number* of coatings or any other HAP containing material used
$R_{HAP}$ = HAP verifiably recovered from painting = lbs of paint waste × [(volatile % of waste – water % of waste)/100] × HAP content of volatile
Volatile % of waste = Determined using Method 24 from 40 CFR 60
Water % of waste = Determined using Method 24 from 40 CFR 60
HAP content of volatile = Determined using Method 8260 from SW-846 or 0.0 (absent testing)
$WM_j$ = lbs of welding material *j* containing single HAP used per month
$EF_j$ = welding AP-42 emission factor – Manganese, nickel, chromium and cobalt emission factors are 1.03, .005, .006, and .001 lbs of HAP/1000 lbs of wire used, respectively.
$CE_j$ = control efficiency (welding, EP 06) – 0.75 lbs of HAP captured/lb of HAP generated
$NG_k$ = source wide natural gas usage in $ft^3$ per month

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

$EF_k$ = natural gas combustion AP-42 emission factor – Formaldehyde 0.075 lbs of formaldehyde/$10^6$ $ft^3$ of natural gas fired. Hexane 1.8 lbs of hexane/$10^6$ $ft^3$ of natural gas fired
$GR$ = gallons of Esterlite 805 Polyester Resin used
$EF_{resin}$ = HAP emission factor for Esterlite 805 Polyester Resin
$D_k$ = source wide diesel usage in gallons per month
$EF_k$ = engine test diesel emission factor – for formaldehyde: 0.0182 lbs of HAP/gal of diesel (converted from Locating and Estimating Air Emissions from Sources of Formaldehyde (Revised))

Combined HAPs emissions shall be calculated as follows:

$$\text{Combined HAP emitted (lbs/month)} = \sum_{j=1}^{m} HAP_j$$

Where: $j$ = individual HAP emissions per month
$m$ = total number of single HAP emissions

All emission calculations shall be based on the above, ***Compliance Demonstration Methods*** specified in **Section B** for each respective emission point, or standard USEPA methodology (i.e. Division approved control efficiency and transfer efficiency estimates, emission factors provided as EPA guidance, EPA recognized estimating programs such as TANKS, testing results, verifiable recovery (excluding petroleum and degreaser), and by assuming that all other untested non-combustion materials used are emitted unless recovered).

**4. Source Testing Requirements:**

a. The permittee shall not reduce surface coating related emissions unless the composition of the waste paint recovered is determined in accordance with this condition. Waste recovery used to reduce emissions shall be established using the following methods and procedures, Refer to 40 CFR 60, Appendix A, Method 24, and SW-846 (at www.epa.gov/epaoswer/hazwaste/test/main.htm) for details of the testing methods.
   i. The permittee shall offer the Paducah Regional Office the opportunity to observe sampling (performed by the permittee just prior to shipment of the waste off-site) and the option to collect samples. In the event an unforeseen circumstance delays the waste shipment off-site, no additional waste shall be added to the shipment (the waste shall be shipped as sampled).
   ii. The permittee shall notify the Paducah Regional Office at least three (3) business days prior to any waste paint sampling and at least ten (10) days prior to the first waste paint sampling done following the issuance date of this permit
   iii. The sampling shall be done using a Coliwasa or any devices capable of equivalent sampling (only one design shall be used unless a change is approved by the division)
   iv. The sample or samples shall be randomly taken from any representative portion of the waste and shall be representative of the entire vertical strata of the waste (as described in Chapter 9 of SW-846)
   v. Samples shall be placed into 40 mL VOA vials, labeled, secured so that no one can tamper with the samples, and placed in a cooler with ice for shipment under a chain of custody to a reliable laboratory (as described in SW-846, Chapter 1)

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

vi. The sample(s) shall be tested by Method 24 found in 40 CFR 60, Appendix A, to determine water content (% by mass) and volatile content (% by mass) of the waste
vii. The sample(s) shall be prepared for direct injection by the procedures described in SW-846, Method 3580A
viii. Individual HAP content of the waste shall be determined through application of the procedures described in SW-846, Method 8260

b. If the permittee wishes not to use any of the Division assumed emission factors for diesel engine testing, the permittee shall perform testing by appropriate methods specified in 401 KAR 50:015 and in accordance with 401 KAR 50:045. Each testing run shall be defined as a complete engine test as described in the permittee's application. Testing high horsepower engines will demonstrate, to the division's satisfaction, maximum emissions from engines with lesser horsepower ratings (bigger engines may require additional tests). Additionally, test results matching recognized literature may (upon division review and approval) indicate other acceptable emission factors for untested groups of engines.

c. The following shall apply to all testing:
If emission factors or control efficiencies are established for an emission point by testing, those emission factors or control efficiencies may be applied retroactively to the date of permit issuance upon a showing by the permittee that the conditions during the test were representative of the conditions in effect for the particular emission point at the time of permit issuance. Test data that has been approved by the division may be used to demonstrate compliance with the terms of this permit or the provisions of underlying applicable requirements, but would not affect past emission fees.

**5. Source Recordkeeping Requirements:**

Actual $NO_x$, CO, PM, VOC and HAP emissions, emissions from each emission point shall be determined and recorded on a monthly basis in accordance with **3. Source Emission Limitations,** ***Compliance Demonstration Method*** and **Sections B** at **2. Emission Limitations** ***Compliance Demonstration Method*** for each emission point. The permittee shall maintain records onsite such that they are readily accessible. These records shall be provided to Division personnel upon request. At a minimum, the following shall be recorded:

a. Pounds of waste captured at EP03 by the control device each month.
b. Pounds of waste captured at EP04 by the control device each month.
c. Pounds of blasting material used at EP05 each month.
d. Pounds of welding wire used each month (specific designations not required unless permittee wishes to use other emission factors than the ones provided in this permit).
e. Gallons of diesel used in each engine test.
f. Specifications of each engine test (% loading during test, amount of time at all loading conditions, engine model tested, etc.).
g. (Condition removed from previous version)
h. Cubic feet of natural gas burned each month (plant wide usage is acceptable)
i. Gallons of paint used at EP09 each month.
j. Gallons of rod coating sprayed each month.
k. Gallons of head coating sprayed each month.
l. Gallons of paint used at EP20 each month.
m. Gallons of paint used at EP21 each month.
n. Gallons of paint used at EP25 each month.

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)

o. Gallons of spray can paint used each month.
p. VOC, HAP, and solids content of each paint, rod coating, or head coating used.
q. Gallons of gasoline filled into storage tanks each month.
r. Gallons of kerosene filled into storage tanks each month.
s. Gallons of diesel filled into storage tanks each month (include recovery from locomotives).
t. Gallons of oil filled into storage tanks each month (include waste recovery).
u. Gallons of Esterlite 805 Polyester Resin (or equivalent) used at EP17 each month.
v. Gallons of each other product used at EP17 each month.
w. VOC and HAP content of each other material used at EP17.
x. Pounds of paint waste recovered and sent for disposal each month.
y. All composition test results for recovered waste paint.
z. Gallons of each solvent used for degreasing each month.
aa. VOC content of each solvent used for degreasing.
bb. All other relevant emission test results.
cc. Amount of NOx, PM, VOC, individual HAP, and combined HAP emissions each month.
dd. Total $NO_x$, PM, VOC, individual HAP, and combined HAP emissions for each twelve (12) consecutive month period for which data is available.

**6. Source Reporting Requirements**:

The permittee shall report the following on a monthly basis. These reports shall be certified by a responsible official, and delivered by electronic media (such as fax or e-mail) or postmarked to the Division's Paducah Regional Office within fifteen days following the end of the month unless the permittee requests and receives written approval from the Paducah Regional Office to alter the timing (delayed reporting should be granted only when extenuating circumstances warrant). These reports may also be delivered by courier as long as the reports are stamped received as indicated above. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

a. Gallons of paint (including thinner) used and recovered shall be reported.
b. Any test results for recovered paint waste shall be reported.
c. Number of engine tests and gallons of diesel used in the tests shall be reported.
d. Any deviations from requirements in this section shall be reported.
e. The amount of $NO_x$, PM, VOC, individual HAP, and combined HAP emissions for each month shall be reported. The total emission for each pollutant for the most recent month's rolling twelve month total emissions shall also be reported.

## SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a. Date, place (as defined in this permit), and time of sampling or measurements;
   b. Analyses performance dates;
   c. Company or entity that performed analyses;
   d. Analytical techniques or methods used;
   e. Analyses results; and
   f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [401 KAR 52:030 Section 3(1)(f)1a and Section 1a-7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

3. In accordance with the requirements of 401 KAR 52:030 Section 3(1)f the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
   a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
   b. To access and copy any records required by the permit:
   c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

   Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030, Section 26]

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:030 Section 22. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
   a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
   b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

9. Pursuant to 401 KAR 52:030, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
   a. Identification of the term or condition;
   b. Compliance status of each term or condition of the permit;
   c. Whether compliance was continuous or intermittent;
   d. The method used for determining the compliance status for the source, currently and over the reporting period.
   e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

## SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Paducah Regional Office
130 Eagle Nest Drive
Paducah, KY 42003

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:030, Section 3(1)(d), the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee. If a KYEIS emission report is not mailed to the permittee, the permittee shall comply with all other emission reporting requirements in this permit.

11. The Cabinet may authorize the temporary use of an emission unit to replace a similar unit that is taken off-line for maintenance, if the following conditions are met:

a. The owner or operator shall submit to the Cabinet, at least ten (10) days in advance of replacing a unit, the appropriate Forms DEP7007AI to DD that show:
   (1) The size and location of both the original and replacement units; and
   (2) Any resulting change in emissions;
b. The PTE of the replacement unit shall not exceed that of the original unit by more than twenty-five (25) percent of a major source threshold, and the emissions from the unit shall not cause the source to exceed the emissions allowable under the permit;
c. The PTE of the replacement unit or the resulting PTE of the source shall not subject the source to a new applicable requirement;
d. The replacement unit shall comply with all applicable requirements; and
e. The source shall notify Regional office of all shutdowns and start-ups.
f. Within six (6) months after installing the replacement unit, the owner or operator shall:
   (1) Re-install the original unit and remove or dismantle the replacement unit; or
   (2) Submit an application to permit the replacement unit as a permanent change.

# SECTION G - GENERAL PROVISIONS

1. General Compliance Requirements

   a. The permittee shall comply with all conditions of this permit. A noncompliance shall be a violation of 401 KAR 52:030 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to the termination, revocation and reissuance, revision, or denial of a permit [Section 1a-2 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-5 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:030 Section 18. The permit will be reopened for cause and revised accordingly under the following circumstances:
      (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:030 Section 12;
      (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
      (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

      Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

   d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 6 and 7 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

   e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:030 Section 3(1)(c)].

## SECTION G - GENERAL PROVISIONS (CONTINUED)

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:030 Section 7(1)].

g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-11 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-12-b of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038 Section 3(6) [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:030 Section 11(3)].

l. This permit does not convey property rights or exclusive privileges [Section 1a-8 of the *Cabinet Provisions and Procedures for Issuing Federally-Enforceable Permits for Non-Major Sources* incorporated by reference in 401 KAR 52:030 Section 26].

m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.

n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

q. Pursuant to 401 KAR 52:030, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
(1) Applicable requirements that are included and specifically identified in this permit; and
(2) Non-applicable requirements expressly identified in this permit.

2. Permit Expiration and Reapplication Requirements

a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:030 Section 12].

b. The authority to operate granted through this permit shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:030 Section 8(2)].

3. Permit Revisions

a. Minor permit revision procedures specified in 401 KAR 52:030 Section 14(3) may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:030 Section 14(2).

b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

5. Testing Requirements

   a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

   b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If [When] the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.

   c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

6. Acid Rain Program Requirements

   If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

7. Emergency Provisions

   a. Pursuant to 401 KAR 52:030 Section 23(1), an emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
      (1) An emergency occurred and the permittee can identify the cause of the emergency;
      (2) The permitted facility was at the time being properly operated;
      (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
      (4) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two (2) working days of the time when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

(5) Notification of the Division does not relieve the source of any other local, state or federal notification requirements.

b. Emergency conditions listed in General Provision G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:030 Section 23(3)].

c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:030 Section 23(2)].

8. Ozone depleting substances

a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
   (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

## SECTION G - GENERAL PROVISIONS (CONTINUED)

9. Risk Management Provisions

   a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

      RMP Reporting Center
      P.O. Box 1515
      Lanham-Seabrook, MD 20703-1515.

   b. If requested, submit additional relevant information to the Division or the U.S. EPA.

## SECTION H - ALTERNATE OPERATING SCENARIOS

None

## SECTION I - COMPLIANCE SCHEDULE

None